UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,119	06/10/2002	Mark Alan Hollis	27795-00028USPX	9073

27045 7590 06/21/2006

ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER	
WONG, WARNER	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/089,119	HOLLIS ET AL.	
	Examiner	Art Unit	
	Warner Wong	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 June 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *20-25* is/are allowed.

6)☒ Claim(s) *1-19,26-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. The following claims are objected to because of the following informalities:

(a) Claim 11-19 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 4-9. See MPEP § 608.01(n). Accordingly, the claims not been further treated on the merits.

(b) Claim 19, line 4: a space is missing from the claim limitations "claims 16 to18".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over Widegren (US 6,374,112) in view of Subbiah (US 6,717,948).

Regarding claims 1 and 16, Widegren describes a telecommunication system having a first network based on a first technology and a second network based on a second technology, the second network in communication with the first network (fig. 1,

comprising the UTRAN, PSTN or Internet (first network) communicating with the Core Network (second network).

[a method with] a message encoding format profile functionality adapted to enable transport of encoded information along at least a portion of a path of communication established between the networks (fig. 3, where the encoded information to/from the UTRAN & Core Network (networks) are transported via AAL2 (profile functionality).

mapping means for mapping the encoded information from a first message having a first message encoding format to a second message having a second message encoding format (fig. 3 & col. 5, lines 54-59, where the input voice and data (first encoded format) are switched (mapped) to the corresponding AAL type of VCC, wherein the mapping is performed in accordance with the following steps:

mapping means for mapping the encoded information from a first message having a first message encoding format to a second message having a second message encoding format (fig. 3 & col. 8, lines 14-23, where AAL2 cells are transparently mapped to the external network user transport 70, such as Internet (i.e. IP), ISDN, etc.)

Widegren fails to specifically describe in regards to mapping means:

a) determining message User-to-user Indication information,

b) determining message Length Indicator information, and

c) selecting a message encoding format based on the determination of a) and b), above, and;

message creation means for creating the second message having a message encoding format in accordance with the encoding format selected in c).

Subbiah describes in regards to mapping means:

a) determining message User-to-user Indication (UUI) information, b) determining message Length Indicator information, and c) selecting a message encoding format based on the determination of a) and b), above, and message creation means for creating the second message having a message encoding format in accordance with the encoding format selected in c). (fig. 2, col. 2, lines 11-22 and col. 5, lines 13-37 & 54-59, where the voice/data input (of first encoded format) may be in ATM CPS form with UUI & LI fields for determining the selection (mapping) of output VCC & composition (message creation means) of respective AAL2 or AAL5 cells).

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the mapping means and message creation means of Subbiah and apply it to the UTRAN of Widegren which determines the communication means with the Core Network.

The motivation for combining the teaching is that such a method supports low bit rate and delay sensitive applications [on top of non-delay sensitive/data applications] in an ATM environment (col. 2, lines 51-54).

Regarding claims 2 and 17, Widegren further describes that mapping is based on logical mapping (col. 8, lines 21-23, where logical mapping is deployed to provide transport end-to-end services);

Regarding claims 3 and 18, Widegren fails to describe that logical mapping includes bit stuffing.

Subbiah describes that logical mapping includes bit stuffing (col. 5, lines 59, where unused bytes 342 (bit stuffing) is deployed).

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the using bit stuffing for the mapping means as in Subbiah for the mapping means of Widegren.

The motivation for combining the teaching is that such a method supports low bit rate and delay sensitive applications [on top of non-delay sensitive/data applications] in an ATM environment (col. 2, lines 51-54).

Regarding claim 4, Widegren describes that the second network is an ATM core network (fig. 1, core network 16).

Regarding claim 5, Widegren further describes that the ATM network includes an AAL2 Adaptation layer (fig. 3, where AAL2 66 is used in the ATM core network 18).

Regarding claim 6, Widegren further describes that the AAL2 adaptation layer includes an I.366.2 Service Specific Convergence Sublayer SSCS (fig. 2, where ATM AAL2 layer cells inherently includes the standardized I.366.2 SSCS sublayer as described by the Subbiah reference, col. 5, lines 13-19, but not used as a reference.)

Regarding claim 7, Widegren further describes that the first network is an access network (fig. 1, UTRAN 24 (Universal Terrestrial Radio Access Network)).

Regarding claim 8, Widegren further describes that the first network is a radio access network (fig. 1, UTRAN 24 (Universal Terrestrial Radio Access Network)).

Regarding claim 9, Widegren further describes that the radio access network is a UMTS access network (fig. 1, UTRAN 24 (Universal Terrestrial Radio Access Network)).

Regarding claim 10, Widegren further describes that the first network is a PLMN (fig. 1, where the PSTN 12 is a PLMN).

Regarding claim 11, Widegren further describes that the message encoding format profile functionality is located in a node of the core network (fig. 1 &3 and col. 8, lines 24-31, where the transport service 68 (format profile functionality) exists on the core network to external network (12, 14)).

Regarding claim 12, Widegren further describes that the node is a UMSC of the core network (fig. 1 where the MSC 18 and GPRS Node 20 as a aggregate is a UMSC or the core network 16).

Regarding claim 14, Widegren describes a telecommunication system including the message encoding format profile functionality as claimed 1 (fig. 1, a UMTS telecommunications system).

Regarding claim 15, Wildegren further describes a third network in communication with the second network, and wherein the message encoding format profile functionality is adapted to enable transport of encoded information along at least a portion of a path of communication established between the first and third network (fig. 1, where the internet 114 (third network) is in communication with the UMTS ATM-based core (second) network, with the transport 68 adapted to communication the encoded information).

Wildegren fails to describe that the third network is based on the first technology in communication with the second network.

Subbiah describe that the switch (core network) output of speech/voice and data may use (same) ATM technology.

It would have been obvious to one with ordinary skill of art at the time of invention by applicant to describe using the same technology in both the first and third networks as in Subbiah for the system of Wildegren.

The motivation for combining the teaching is that such a method supports low bit rate and delay sensitive applications [on top of non-delay sensitive/data applications] in using an (one) ATM environment (col. 2, lines 51-54).

Regarding claim 19, Wildegren further describes:

providing a message encoding format profile functionality adapted to enable transport of encoded information along at least a portion of a path of communication established between the networks

providing a message encoding format profile functionality in accordance with the method of claim 16 (fig. 3, where the encoded information to/from the UTRAN & Core Network (networks) are transported via AAL2 (profile functionality), as per claim 16);

Wildegren fails to describe:

creating the second message having a message encoding format as defined by the encoding format selected in step c).

Subbiah describes:

creating the second message having a message encoding format as defined by the encoding format selected in step c) (fig. 2, col. 2, lines 11-22 and col. 5, lines 13-37 & 54-59, where the selection (mapping) of output VCC and composition/creating AAL cells (second messages) of respective AAL2 or AAL5 cells occur).

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the message creation means of Subbiah and apply it to the UTRAN of Widegren which determines the communication means with the Core Network.

The motivation for combining the teaching is that such a method supports low bit rate and delay sensitive applications [on top of non-delay sensitive/data applications] in an ATM environment (col. 2, lines 51-54).

3. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Widegren in view of Subbiah as applied to claim 1 above, and further in view of Oestreich (US 6,349,197).

Wildegren fail to describe that the encoded information is AMR codec encoded information.

Oestreich describes that the encoded information is AMR codec encoded information (col. 6, lines 60-63, where AMR is used in speech (information) encoding).

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the use of AMR for encoding information as by Oestreich for the combined functionality of Wildegren and Subbiah.

The motivation for combining the teachings is that it provides an improved speech quality to the listener (col. 6, lines 60-63).

4. **Claim 26** is rejected under 35 U.S.C. 103(a) as being unpatentable over Widegren in view of Oestreich.

Regarding claim 26, Widegren describes a method of transporting encoded speech information to and from a first endpoint in an access network across an ATM core network, said access network being connected to said core network via first telecommunications node (fig. 1 & 3, with BS 28, UTRAN 24 (access network), and ATM-based core network 16), the method comprising:

(b) transmitting said encoded packet to said first telecommunications node (fig. 1, where MS 30 transmit encoded speech packets to an originating BS 28 (first telecommunications node));

(d) reconstructing the encoded packet at a second telecommunications node and reconstructing at the second telecommunications node (fig. 1, where the encoded speech packet is reconstructed at the destination BS 28 (second telecommunications node));

(d) & (e) transmitting said ATM Convergence Sublayer Protocol Data Unit across said core network to said second telecommunications node and reconstructing at the second telecommunications node within or at an interface to said ATM core network (fig. 3, where the ATM AAL2 cells, inherently containing ATM Convergence Sublayer

Protocol Data Unit, may route from one UTRAN to another UTRAN of the same ATM core network).

Widegren fails to describe:

(a) generating and transmitting an AMR encoded packet at said first endpoint from a digitised speech signal and reconstructing AMR encoded packet at the second endpoint

Oestreich describes:

(a) generating and transmitting an AMR encoded packet at said first endpoint from a digitised speech signal and reconstructing AMR encoded packet at the second endpoint (fig. 6 & col. 6, lines 60-63, where the originating Mobile Station (MS) encode the speech transmission using AMR and which will be decoded at the destination MS);

(c) mapping the contents of said AMR encoded packet at said first telecommunications node into PCM format for network transmission (col. 4, lines 61-64);

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the use of AMR for encoding information as by Oestreich for the functionality of Wildegren.

The motivation for combining the teachings is that it provides an improved speech quality to the listener (col. 6, lines 60-63).

Regarding claim 27, Wildegren describes a telecommunications system including:

one or more access networks connected to an ATM core network, a first endpoint in communication with said core network via said a first of said access networks, and first and second telecommunications nodes both of which are within or at interfaces to said ATM core network (fig. 1, with MS 30 (endpoints), BS 28 (telecommunication nodes) communicating with the ATM-based core network 16), wherein

said first telecommunications node acts to map the encoded packet into an ATM Convergence Sublayer Protocol Data Unit and transmits said ATM Convergence Sublayer Protocol Data Unit across said core network to said second telecommunications node for reconstruction of said encoded packet (fig. 3, where the encoded speech packets are mapped into ATM AAL2 at the UTRAN and MSC/Core Network, inherently comprising the ATM Convergence Sublayer Protocol Data Unit, and sent down to another BS (second telecommunication node)).

Wildegren fails to describe:

said first endpoint acts to generate an AMR encoded packet at said first endpoint from a digitised speech signal and transmits said AMR encoded packet to said first telecommunications node.

Oestreich describes:

first endpoint acts to generate an AMR encoded packet at said first endpoint from a digitised speech signal and transmits said AMR encoded packet to said first telecommunications node (fig. 6 & col. 6, lines 60-63, where the MS (first endpoint) sends AMR encoded speech to the Base Station (first telecommunication node).

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the use of AMR for encoding information as by Oestreich for the functionality of Wildegren.

The motivation for combining the teachings is that it provides an improved speech quality to the listener (col. 6, lines 60-63).

Regarding claim 28, Wildegren describes a first telecommunications node for use in a telecommunications system including one or more access networks connected to an ATM core network, a first endpoint in communication with said core network via a first of said access networks, and a second telecommunications node, said first and second telecommunications nodes both being within or at interfaces to said ATM core network (fig. 1, with MS 30 (endpoints), BS 26 (telecommunication nodes), UTRAN 24 (access network), ATM-based core network 16), wherein said first telecommunications node includes:

processing means to map the contents of said encoded speech packet into an ATM Convergence Sublayer Protocol Data Unit (fig. 3, where BS maps the contents of encoded speech packet into ATM AAL2, inherently comprising Convergence Sublayer Protocol).

transmission means to transmit said ATM Convergence Sublayer Protocol Data Unit across said core network to said second telecommunications node (fig. 1, where the core network routes packets down to a BS of another UTRAN 24).

Wildegren fails to describe:

the first endpoint acts to generate an AMR encoded packet from a digitised speech signal and transmits said AMR encoded packet to said first telecommunications node, and reconstructing of said AMR encoded packet from said ATM Convergence Sublayer Protocol Data Unit.

Oestreich describes:

the first endpoint acts to generate an AMR encoded packet from a digitised speech signal and transmits said AMR encoded packet to said first telecommunications node, and reconstructing of said AMR encoded packet from said ATM Convergence Sublayer Protocol Data Unit.

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the use of AMR for encoding information as by Oestreich for the functionality of Wildegren.

The motivation for combining the teachings is that it provides an improved speech quality to the listener (col. 6, lines 60-63).

Allowable Subject Matter

5. Claims 20-25 allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to describe a mapping means wherein the mapping is performed specifically in accordance the description outline in table 2 of the specification.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lancelot (US 6,026,086) and Lim (US 6,801,508).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 6:30AM - 3:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Warner Wong
Examiner
Art Unit 2616

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER